1.3 Cycloaddition (Triazole Cure)

Principal Investigators

U. Florida

Objectives

- To understand the cross linking polymerization chemistry and resulting physical/mechanical properties for 1.3 cycloaddition triazole ring formation.
- To produce new binders for explosives and propellants composed of azido-containing oligomers crosslinked by triazole cure.

Approach

- Model triazole cure kinetics
- Establish structure-activity/mechanical property correlation between polyacetylene cure agents and polyazido binder structure.
- Fabricate and characterize small propellant samples.

Payoff